

furrows, and here they are much less strongly marked. The lateral keel in *E. ebenina* presents a nearly even line, but in *E. Bonariensis* the keel is distinctly indented; the sulci on the thorax are less strongly marked and more numerous.

Seven specimens of this species occur in Mr. Darwin's collection.

EPIPEDONOTA LATA. *Epip. atra, nitida, lata; capite punctis dispersis anticè, apud medium sulco transverso, et posticè sulcis paucis obliquis; thorace sulcis, his obliquis, illis apud medium longitudinalibus, illis margini proximis transversis, insculpto; elytris convexis costis latis paulò elevatis posticè subobliteratis, spatio inter costam secundam et carinam externam, sulcis profundis transversis notato.*

Long. corp. $9\frac{3}{4}$ lin.; lat. 6 lin.; vel, long. $8\frac{2}{3}$ lin.; lat. 5 lin.

Hab. Port Desire.

This species is larger and proportionally much broader than *E. ebenina*. The thorax, in proportion to the size of the insect, is much broader than in any other species of *Epipedonota* here described, the width being nearly equal to two-thirds of the length of the elytra; whereas in *E. affinis*, which I have described as a shorter and broader species than *E. ebenina*, the width of the thorax is scarcely more than equal to half the length of the elytra.

The head is punctured in front and has some waved transverse grooves and ridges between the eyes. The thorax is about twice as broad as long, emarginated in front nearly in the form of a segment of a circle; the lateral margins are rounded; it is widest a little behind the middle and narrowest in front; the anterior and posterior angles are acute; the upper surface is nearly flat, but the lateral margins are slightly reflected; the anterior mesial portion is a little convex, and the posterior mesial portion is sometimes slightly concave; the whole surface is covered with narrow grooves and ridges; those on the dorsal part of the thorax are longitudinal but slightly irregular, towards the sides they are oblique, diverging slightly behind, and a broadish space at the sides is covered with sub-transverse grooves, these being directed inwards and slightly upwards from the lateral margin. The width of the elytra, as compared with the length, is as 4 to 5; their upper surface is convex, excepting at the base, where they are somewhat depressed: on each elytron are three longitudinal narrow grooves, these are distinct and wavy at the base of the elytra; the first groove, or that nearest the suture, is obliterated on the hinder half of the elytron; the second is continued nearly to the apex, but from the base it becomes gradually less distinct; the third extends to the apex, and forms as it were the outer boundary to the convex portion of the elytra for the space between the last-mentioned line and the lateral keel, which is nearly equal in width to one-third of that of the elytron, is nearly flat, or even slightly concave in the males; on this space is a series of deep transverse indentations, leaving convex interstices of a width corresponding to that of the grooves. The two interspaces between the first, second and third striæ of each elytron are very broad and slightly convex; and on the second or outermost of these interspaces are a few oblique furrows, which are not very distinct, and for the most part rather widely separated. Be-

sides the longitudinal striæ mentioned, there are some others, but these are short and confined to the base of the elytra; in the males about five or six longitudinal grooves may be seen at the base of each elytron, and all of these grooves are more or less wavy. The sides of the prosternum present distinct longitudinal sulci, and narrow longitudinal sulci are observable on the abdominal segments.

Three specimens of this new species were brought from Port Desire by Mr. Darwin.

Genus *CALLYNTRA*, Solier.

Callyntra vicina, Solier. One specimen of this species was brought from Valparaiso by Mr. Darwin.

Genus *CEROSTENA*, Solier.

CEROSTENA PUNCTULATA. *Cer. atra, elongato-ovata*; capite crebrè punctato et transversim impresso; thorace transverso, anticè profundè emarginato, suprà ferè plano, punctato; marginibus lateralibus reflexis, disco foveis duabus impresso; elytris oblongo-ovatis, paulò convexis, suprà punctulatis, singulis costis duabus dorsalibus subobliteratis; carinâ laterali paulò prominente.

Long. corp. $8\frac{3}{4}$ lin.; lat. $4\frac{3}{4}$ lin.

Hab. St. Cruz.

In general appearance the present species resembles the *Blaps obtusa*, but the thorax is much shorter and the body more depressed. On the hinder part and sides of the elytra is an ashy pubescence, and I think it probable that small hairs have originally been scattered over the whole upper part of the elytra and have been rubbed off the most exposed parts. On the under side of the head and body small hairs are also perceptible in the less exposed parts. The prosternum is very rugose beneath on the fore-part, and has distinct longitudinal furrows at the sides, as has also the mesothorax; the abdominal segments are thickly punctured, and there are longitudinal rugæ on the basal segments. The legs and tarsi are moderately well clothed with small yellowish hairs.

Unfortunately the antennæ are not perfect in the only specimen which Mr. Darwin brought home of this species; in the characters afforded by other parts, however, it agrees with M. Solier's genus *Cerostena*: the absence of sulci on the upper surface of the thorax would serve to distinguish it from the species of that genus hitherto described.

Psectrascelis pilipes, Solier. *Nyctelia pilipes*, Guerin. Numerous specimens of this species were brought from Coquimbo by Mr. Darwin.

Entomoderes Erebi, Solier. Mr. Darwin's collection contains one specimen of this curious insect, and this was found at Mendoza.

GEOLOGICAL SOCIETY.

Dec. 15, 1841.—A paper was read, "On the occurrence of the Bristol Bone-Bed in the Lower Lias near Tewkesbury," by Hugh Edwin Strickland, Esq., F.G.S.

After alluding to the occurrence of the bone-bed at various places between Westbury and Watchett, also at Golden Cliff and St. Hilary

in Glamorganshire, and at Axmouth, Mr. Strickland proceeds to describe its characters at three newly discovered localities, many miles to the north of the points previously known, namely, Coomb Hill, between Tewkesbury and Gloucester, Wainlode Cliff, and Bushley.

1. *Coomb Hill, four miles south of Tewkesbury**.—In lowering the road through the lias escarpment during the summer of 1841 a considerable surface of the bone-bed was exposed, and its contents were rescued from destruction by Mr. Dudfield of Tewkesbury. The following section is given by Mr. Strickland:—

	Ft.	in.
1. Yellow clay	2	0
2. Lias limestone	0	3
3. Yellow clay	5	0
4. Nodules of lias limestone	0	6
5. Brown clay	14	0
6. Impure pyritic limestone with Pectens and small bivalves	0	6
7. Black laminated clay	8	0
8. Hard, grey pyritic limestone	0	2
9. Black laminated clay	1	0
10. Greyish sandstone	0	2
11. Black laminated clay	1	6
12. <i>Bone-bed</i>	0	1
13. Black laminated clay	3	6
14. Compact, angular, greenish marl	25	0
15. Red marl	3	0
Dip about 12° east.	64	8

The bone-bed, No. 12, rarely exceeds one inch in thickness, and frequently thins out to less than a quarter of an inch. It consists in some places chiefly of scales, teeth and bones of fishes, and small coprolites cemented by iron pyrites, but in others the organic remains are rare, and are replaced by a whitish micaceous sandstone. The osseous fragments, Mr. Strickland states, have the appearance of having been washed into the hollows of a rippled surface of clay, and of having been subjected to slight mechanical action. The existence of gentle currents is further proved, he says, by the presence of small rounded pebbles of white quartz, a substance of very rare occurrence in the liassic series. The only shell found in the bed at Coomb Hill is a smooth bivalve, but too imperfect to be generically determined.

2. *Wainlode Cliff, three miles west-south-west from Coomb Hill*.—The section exposed at this locality has been laid open by the action of the Severn, and consists of the following beds:—

* Mr. Murchison has noticed the section formerly exposed in this escarpment, but at the time he examined the district, Mr. Strickland says, the banks were obscured by debris, and the bone-bed did not attract his attention. See Mr. Murchison's *Account of the Geology of Cheltenham*, p. 24, plate, fig. 1, and *Silurian System*, pp. 20, 29, pl. 29, fig. 1.

	Ft.	in.
1. Black laminated clay, inclosing, near the top, a band of lias limestone with <i>Ostreæ</i>	22	0
2. Slaty calcareous sandstone, with a peculiar small species of <i>Pecten</i>	0	4
3. Black laminated clay	9	0
4. <i>Bone-bed</i> , passing into white sandstone.	0	3
5. Black laminated clay	2	0
6. Light green angular marl	23	0
7. Red marls, with zones of a greenish colour . .	42	0
Dip very slight to the south.	98	7

The bone-bed is far less rich in organic remains, accumulations of fragments of bones and coprolites occurring at rare intervals; and its prevailing character is that of a fissile, white, micaceous sandstone, sometimes acquiring a flinty hardness. The upper surface of the bed is ripple-marked, and in some cases presents impressions considered by Mr. Strickland to have been probably made by the claws of crustacea. A small bivalve is also the only shell found in the bed. The stratum No. 2, the author says, is evidently a continuation of No. 6. of the Coomb Hill section.

3. *Bushley, two miles and a half west of Tewkesbury*.—The intersection of the lias escarpment by the Ledbury road near Bushley afforded Mr. Strickland the following section:—

	Ft.	in.
1. Black laminated clay, about	10	0
2. Lias limestone	0	4
3. Black laminated clay	6	0
4. Compact slaty bed with numerous small bivalves, and the <i>Pecten</i> of Wainlode and Coomb Hill	0	3
5. Black laminated clay	9	0
6. <i>White micaceous sandstone</i> , with impressions of two species of bivalve shells	1	0
7. Black laminated clay	2	6
8. Greenish marl, about.	20	0
9. Red marl.	—	—
Dip about 8° east.	49	1

The sandstone bed, No. 6, agreeing precisely with that at Wainlode Cliff, Mr. Strickland does not hesitate to consider it the representative of the bone-bed, though organic remains are wanting; and he points out the identity of the stratum No. 4. with the beds Nos. 2. and 6. of the preceding sections. The author also refers to the railway section near Droitwich, and identifies with the bone-bed the two-feet band of white micaceous sandstone six feet above the top of the green marl, as it contains the same indeterminable small bivalve. He has also examined sections of the lias escarpment at Norton near Kempsey, and Cracombe Hill near Evesham, and has

invariably detected, a few feet above the base of the lias clay, a thin band of white sandstone containing the same shell.

The bone-bed at Axmouth, Watchett, Aust, Westbury, and other southern localities, occupies precisely the same geological position, or a few feet above the top of the greenish marls which terminate the New Red system, though much more rich in organic remains; and Mr. Strickland draws attention to this remarkable instance of a very thin stratum ranging over a distance of about 112 miles.

The great abundance of fossils in some parts of this stratum the author considers an indication that a much longer period probably elapsed during its deposition, either on account of the clearness of the water or of a gentle current which prevented the precipitation of muddy particles, than while an equal thickness of the less fossiliferous clays above or below it was accumulated.

The list of organic remains given in the paper includes scales of *Gyrolepis tenuistriatus*? and *Amblyurus*; teeth of *Saurichthys apicalis*, *Acrodus minimus*, *Hybodus minor*, *Pycnodus*?; others bearing an analogy to those of *Sargus*; portion of a tooth with two finely serrated edges, and considered as probably belonging to a saurian allied to the genus *Palæosaurus*; a tooth of *Hybodus De la Bechei* (*H. medius*, Ag.), a ray of *Nemacanthus monilifer*; small vertebra of a fish; bones of an *Ichthyosaurus*; coprolites; and the casts of the bivalve before mentioned.

Mr. Strickland next alludes to Sir Philip Egerton's paper on the *Ichthyolites* of the bone-bed, and he states that the bed cannot be of the age of the muschelkalk, as it overlies the red and green marls, which he considers to have been satisfactorily shown to be equivalent to the Keuper sandstein of Germany; and that the occurrence of muschelkalk fishes associated with lias *Ichthyolites* only justifies the inference that certain species survived from the period of the muschelkalk to that of the bone-bed. There are yet stronger grounds, Mr. Strickland states, for placing the bone-bed in the liassic series in the remarkable change a few feet below it, from black laminated clay to compact "angular" marl, greenish in the upper part and red below; and he adds, the transition is so sudden that it may be defined within the eighth of an inch; moreover no marl occurs above the line nor black laminated clay below it; and although, in the case of the bone bed, an arenaceous deposit similar to the Keuper sandstein is repeated, accompanied by some triassic organic remains, yet, the author adds, this does not invalidate the evidence of the commencement of a new order of things, or of an interesting passage into the liassic series from the triassic system.

Lastly, Mr. Strickland notices the occurrence of precisely analogous bone-beds in the Upper Ludlow rock, described by Mr. Murchison in the 'Silurian System' (p. 198), and in Caldy Island, near the junction of the carboniferous limestone with the old red sandstone; and he offers some remarks on the bone-beds being found in all the three cases near the passage from one great geological system of rocks to another.

January 5, 1842.—“A Notice on the Fossil Bones found on the surface of a raised Beach at the Hoe near Plymouth,” by Edward Moore, M.D., F.L.S., was first read.

At the Meeting of the British Association at Plymouth, Dr. Moore read a paper on the same subject as that which forms part of the present communication*. In this notice he first alludes to the discovery of the beach by the Rev. R. Hennah in 1827†, and to Mr. De la Beche's account of numerous anciently raised beaches in Devon and Cornwall‡; he then briefly describes the characters of the beach, its position in a hollow in the limestone rock, 100 feet wide, 70 feet deep, and, at its base, 35 feet above the present high water mark. He also notices a projecting ledge of limestone stretching several hundred feet southward from this spot, and which sustained a mass of sand, with rolled pebbles and blocks, some of them two or three feet in circumference, and forming a hill twenty to twenty-five feet high, containing patches of loose sand with fragments of *Patella* and *Buccinum*. It was, says the author, easily traced by several patches along the rocks, and proved, by its structure and contents, to be a continuation of the same beach. Dr. Moore likewise briefly describes another deposit 100 yards westward of the beach, and at a greater elevation, being 88 feet above high water, 50 feet in extent, and 10 in thickness, covered irregularly by soil.

The animal remains more particularly enumerated by Dr. Moore consist of a molar and part of the jaw of a young elephant; a femur of a rhinoceros; maxillary bones of a bear, with the malar and palatine processes, and two teeth in each; an entire right lower ramus with teeth and tusks, the latter much worn; four separate tusks; several fragments of long bones; fragments of jaws of the horse containing teeth, numerous loose teeth, portions of long bones, and two caudal vertebrae; likewise portions of a deer's jaw containing teeth. The quantity of the bones which has been found is stated to be equal to several bushels. The vertebrae of a whale, much rounded, were also discovered, with undeterminable portions of ribs. The animals to which the above remains belonged, are considered by Dr. Moore to have coexisted with those which inhabited the caves of Devonshire.

The author then enters upon a defence of the opinions contained in his paper read at Plymouth, respecting the mode of accumulation of the bones. He states that these osseous remains cannot have been derived from the emptying of some cave, because the mass of superincumbent matter which has been removed from above the beach proves that the bones must have been deposited where they were found at a very ancient period, and long before they could have been affected by human agency. There are also no known caves

* Athenæum, No. 721, and the volume of Reports of the British Association for 1841, Trans. of the Sections, p. 62 (published 1842).

† See also “A Succinct Account of the Lime Rocks of Plymouth,” by the Rev. R. Hennah, 1822, p. 58.

‡ Manual of Geology, 3rd Edition, p. 173, 1833; also Report on the Geology of Cornwall and Devon, p. 423, 1839.

containing bones sufficiently near. On the contrary, says Dr. Moore, if the sea was at one time at the level indicated by the beach, the Hoe must have been an island accessible by animals at low water, and there appears no obstacle to the supposition that the bears might have selected the beach to devour their prey; and the stranded whale may have added to the banquet. Whether the bones were drifted or not, their occurrence on the top of the beach, and not in it, prevents, the author says, any identity of time in their origin; but that the beach previously existed, and was of marine origin, is proved by the resemblance of the deposit to a modern beach, and its containing sea-shells of the existing period, although few in number.

That the deposit is not the result of glacial action, the author observes, is probable from the want of any indication of such action in the neighbouring district; and though he does not presume to assert that this may not be a cause of drift generally, and even of the upper deposit in the same locality, yet he contends that the dissimilarity in the composition of the lower deposit sustains him in the supposition of its being of different origin, and really a deposit from the sea. Lastly, Dr. Moore, in reference to the present position of the beach far above any point attained by the sea during the greatest storms, states that the deposit must have been elevated by natural causes; and that, however uncertain the exact period of such an event, it seems to have occurred at a time probably more recent than the epoch when the extinct animals disappeared.

Appended to the paper, is a notice of a specimen of perforated limestone taken from the Hoe Lake quarries, eighty-five feet above the present level of high water, and Dr. Moore maintains his belief that the perforations were formed by Pholades, and not by snails.

“Notice on the occurrence of Plants in the Plastic Clay of the Hampshire Coast,” by the Rev. P. B. Brodie, F.G.S., was then read.

The cliffs to the east and west of Bournemouth are composed of horizontal strata belonging to the plastic clay formation. East of the town they consist of white and yellow sands, the former containing fragments of wood. Further along the shore the cliffs are higher, and beds of clay full of vegetable remains appear under the sands. About half a mile beyond, a stratum of fine white sand, three or four feet thick, situated near the middle of the cliffs, contains impressions of ferns; and a layer of sand and clay is full of small leaves. The subjacent strata of clay are separated by thin layers of vegetable matter. Somewhat further, beds of white and yellow sand and sandy clay abound with beautiful leaves, and the surface of the strata is in some places covered with a thin layer of iron-sand containing impressions of ferns. In most cases, the various coloured sands are divided by beds of clay, and their fossil contents are distributed in layers at rather distant intervals. Mr. Brodie did not discover any shells. Several of the fossil plants are stated by the author to belong to the *Lauraceæ* and *Amentaceæ*; but he

says that these, as well as others which he arranges among the *Characeæ* and Cryptogams, and some of which he has not determined the characters, are all generically distinct from any British plant, and belong to those of a warmer climate. When the sandstone is freshly broken the epidermis of the fossil frequently peels off, leaving the impression of only the fibres. These remains often form masses of some thickness; and, from their state of preservation, must, the author states, have been deposited tranquilly beneath the waters.

MISCELLANEOUS.

PLUMATELLA REPENS.

Having this day, in the vicinity of Cheshunt, in a pond whose waters are perennial, met with several fine specimens of the above zoophyte, and these being in a living state, I had an excellent opportunity of comparing its polype with that of *Alcyonidium stagnorum*, which I procured in a pond on Acton Green, Middlesex, some time since and then examined, and I find that the polypi agree in all respects in the two species, the tentacula being arranged upon a crescentic disc in both, and their number corresponding, there being usually about fifty, seldom more than sixty, or less than forty in each polype. The ova too are of the same form in both species.

Plumatella repens and *Alcyonella stagnorum* ought therefore without doubt to be regarded as generically identical, for the difference in the mode of branching can scarcely be regarded as affording a character of generic importance: whether they are so specifically or not, has yet to be ascertained, I believe, but I am strongly inclined to think that they are not.

Whenever I have found *Alcyonidium stagnorum*, I have always noticed that it has been attached to pieces of stick, the stems of vegetables, or to some substance which would not necessarily perish and decay in a few weeks, and that some of the specimens were of such a size, being as large as the closed hand, as to lead to the supposition that many months must have elapsed before they could have attained such a development; whereas all the specimens of *Plumatella repens* which I have met with were attached to the decayed leaves of *Typha latifolia*, which in a few short weeks would, as a matter of necessity, be utterly decomposed, involving the zoophyte upon it in its own destruction. In some of my specimens the polypidom has crept over the leaves for several inches, and in all of them without either raising itself from the surface of attachment or exhibiting aggregations of cells, as it might be supposed that it would do were it merely a condition of *Alcyonidium stagnorum*.

September 8th, 1842.

A. H. HASSALL.

NOTES ON THE USES OF SOME MADAGASCAR PLANTS TO THE NATIVES.

On looking, in the process of arrangement, through some plants from Madagascar, forwarded to the Herbarium of the Army Medical

Museum, Fort Pitt, Chatham, my attention was directed to some slips of paper attached to a very few specimens, on which were written (evidently by the collector at the time they were undergoing preservation, and whose name is unknown,) the uses of the plants to the natives. Thinking that they may probably furnish some little information, I have subjoined a list of the species with the accompanying remarks :—

Achyranthes globulifera, Boj.—The infusion of this plant is used in Madagascar for the cure of syphilis.

Sizygium terebinthaceum.—The leaves of this plant are used in Madagascar to give scent to aromatic baths. [Examined under the microscope, both surfaces of the leaves are found to be covered with very minute glandular hairs, having at their apex (which is doubtless the secreting part) a knob of brownish matter, which is most likely to yield the secretion, giving to the plant its aromatic odour.—D. C.]

Blumea alata.—Likewise used for a similar purpose as the *Sizygium terebinthaceum*.

Anthemis dentata, Boj.—Grows in the province of Emirna : the infusion of the whole plant is used in Madagascar as a sudorific.

Gnidia daphnoides, L.—The bark of this plant is manufactured into ropes : met with in the province of Emirna.

Gentiana lutea?—Grows on the mountain of Tananarivor, Madagascar. Used by the natives as a bitter, and given in fever and stomachic complaints.

Dombeya spectabilis, Boj.—Its bark is made into ropes.

Amaranthus debilis.—Used in Madagascar for the cure of syphilitic diseases.

Dais Madagascariensis, L.—The bark of this plant is manufactured into paper.

Croton argyream.—Mentioned here on account of its interesting hairs or scales. The under surface of the leaves of this plant present, when viewed with a magnifying power of fifty linear and upwards, a very beautiful appearance. The whole cuticle is closely studded with numerous very small stellate hairs (or scales), in the centre of which a small elevated circular orifice (?) is seen, probably in connexion with the stomata, and from which, as a centre, the radii proceed, giving the hair or scale a conical appearance. They may indeed be aptly compared, both as to form and apparent structure, to the inverted pappus or seed-down of a compound plant. The numerous brownish spots seen on the under surface of the leaf, are hairs of the same character and structure as those just described, but possessing this difference, viz. that the elevated orifice is of a deep chestnut colour, which tint becomes gradually diffused towards the circumference of the hair, tinging in a slight degree the radii.—DANIEL COOPER, Assistant Surgeon to the Forces, Fort Pitt, Chatham.

August 22, 1842.

ON THE NUCLEI OF THE BLOOD-CORPUSCLES OF THE VERTEBRATA.

When the corpuscles of the oviparous Vertebrata are mixed with water, or with dilute or strong acetic acid, the nuclei are instantly

exposed in the clearest manner, appearing thick, oval, or spherical, and much smaller than their envelopes. Several other vegetable acids and sulphurous acid may be used with the same effect; and the nuclei may also be readily shown by gently moistening with the breath some dry blood on a slip of glass. But when the blood-corpuscles of man and other mammals, not excepting the oval discs of the *Camelidæ* (See Med. Chir. Trans. vol. xxiii., and Lancet, vol. ii. p. 101, 1840-41) are treated by any of the means just specified, and precisely under the same circumstances, no similar nuclei will be observed, unless in very young embryos; for the blood-corpuscles of these enclose a temporary and obvious nucleus which corresponds to the persistent nucleus of the corpuscle of the oviparous Vertebrata. As stated by the author in the Appendix to Gerber's 'Anatomy,' pp. 13 and 30, this does not prove that the corpuscles of mammals have no central matter, although he is induced to infer that these corpuscles have no nucleus like that contained in the corpuscles of the lower vertebrate animals.

The author then gives two figures to show the effect of several reagents, and especially of repeated washing with water till all the colouring matter is removed, on the corpuscles of Mammalia and of the lower Vertebrata. He shows, as he had formerly stated (Phil. Mag. for Feb. 1840, S. 3. vol. xvi. p. 106, 107), that the corpuscles of man, for example, are merely reduced about one-third or one-fourth in size, after completely removing their colouring matter by repeated additions of large quantities of water, when they appear very faint, flat and pellucid, presenting nothing like a nucleus, even when treated with acids and other reagents; nor do these washed blood-discs agree in any respect with the particles which had been commonly described as the nuclei of the blood-corpuscles. Now when all the colouring matter is removed in like manner from the corpuscles of any of the lower Vertebrata, the goose for example, the envelopes and nuclei remain, and are easily distinguishable as distinct parts, both appearing circular, and the nuclei with its component molecules or nucleoli. When exposed by acid the same nuclei present an oval form. Dilute muriatic acid scarcely affects the form of the envelope, but shows the nucleus with an appearance of granular matter around it. The same acid makes the corpuscles of a mammal appear puckered or shrunk, notched at the edges or granulated; some presenting a distinct central spot, irregular at the margin like a granular nucleus; others remaining smooth but misshapen, generally with a dark or brilliant central spot, according to the focus in which they are viewed.—*Abridged from Mr. Gulliver's Contributions to Minute Anatomy, Lond. and Edinb. Phil. Mag. for August.*

ON THE STRUCTURE OF FIBRINE.

The author, referring to his description and plates in the English version of Gerber's 'Anatomy of the Fibres,' and the organic germs or nucleated nuclei in pale or colourless clots of fibrine, figures similar corpuscles, though of a ruddy colour, in the red parts often found towards the edges of such fibrinous clots. He is disposed to

regard all these germs as nearly allied to blood-corpuscles, especially as Dr. Barry has so pertinently asked how many tissues there are that the corpuscles of the blood may not form. It is remarkable, however, that both the ruddy and the pale organic germs of fibrinous clots are irregular in shape, and exhibit nuclei when treated with acetic acid, while precisely the same treatment does not show any nuclei in the free or floating blood-discs. If, therefore, the organic germs of fibrine be blood-corpuscles entangled in the clot, these corpuscles must have undergone changes both in form and in chemical characters. A figure is given in which the germs are exhibited in a mesh of delicate fibrils, together with many very minute circular molecules. The fibrils are also depicted in the fibrine obtained by washing from the blood of the oviparous Vertebrata, which fibrine is further characterized by containing many particles similar to, and probably identical with, the nuclei of the blood-corpuscles.—*Ibid.*

Discovery of a Chambered Univalve Fossil in the Eocene Tertiary of James River, Virginia. By M. Tuomey.

Thinking that it may possess sufficient interest, the following notice of the discovery of a *Nautilus* in the Eocene on James River, is communicated.

Mr. Lyell, during his visit to this portion of the tertiary of the United States, directed my attention to the broken link in our great cretaceous formation, presented by Virginia. At his suggestion, I determined to observe any fossils that may come under my notice, with a view to the elucidation of this interesting point. The liberality of Capt. H. H. Cocke, U. S. N., afforded me a good opportunity of examining the fossils of the well-known eocene locality at Evergreen, near City Point, James River. Capt. Cocke, at the instance of Edward Ruffin, Esq., editor of the 'Farmer's Register,' who is engaged in the investigation of the tertiary of Lower Virginia, caused a shaft to be sunk at the base of the escarpment at the locality just mentioned. In this shaft, and at a depth of about twenty feet below the level of tide-water, the fossil referred to was found. It was imbedded in the dark-coloured tenacious clay containing much greensand, common to some of the eocene strata of this region. The exterior of the shell is much decayed, but the pearly surface of the interior is well preserved, and by removing portions parallel to the aperture the concave septa and siphunculus can be seen. It was associated with eocene species of *Turritella*, *Crassatella*, *Pectunculus*, a small *Panopæa*, and a little lower in the same stratum was found a gigantic *Ostrea*, measuring in height eight and a half inches, breadth five and a half inches, and weighing five pounds. The *upper* valve of this *Ostrea* agrees with the description of *O. percrassa*, Conrad, but in the lower valve the cartilage fosset is deep. The muscular impression in each valve exhibits a cavity extending upwards into the substance of the shell about two inches. A person seeing but this huge individual, and the common form of *O. compressirostra*, Say, found in the same stratum, would pronounce them distinct species; but I am in possession of a suite of specimens showing the in-

intermediate forms between the two, and am convinced that this enormous fossil is but a full-grown *O. compressirostra*.—From Silliman's *American Journal for July 1842*.

EGG OF THE BRAMBLING FINCH.

To the Editors of the Annals of Natural History.

GENTLEMEN,—A gentleman of this city has presented me with the egg of a Brambling Finch, laid in his aviary towards the end of last month. There was only one egg laid, which, when taken, appeared to have been sat upon about ten days, and contained a young bird.

The egg is a little larger than that of the goldfinch: the ground colour is a gray-blue like that of the whinchat, but round the shoulder of the egg there is a belt of thickly scattered cloudings and minute spots of a "lie de vin" or light dull puce colour; these are also scattered (but very much more sparingly) over the other parts of the egg, and in some instances they are collected into larger spots of a rust colour, much like those of the chaffinch, except that the spots on the Brambling's egg are smaller, and less exclusively of a rust colour, being clouded with lie de vin about the edges.

The most curious thing about the egg is the smallness of the size, but this may be in consequence of its being laid in confinement.

The nest was of course made of the materials incidentally supplied, and chiefly dry grass on the outside and deer's hair on the inside.

The nest was thick at the bottom and the cavity somewhat shallow, the whole size intermediate between the nests of the chaffinch and greenfinch.

About ten days since I received a specimen of that rare bird the Baillon's Crake, killed near Yarmouth: it is a fine adult male.

I am, respectfully,

Norwich, August 23, 1842.

J. H. GURNEY.

LOCUSTA MIGRATORIA.

To the Editors of the Annals of Natural History.

I beg to inform you, that on the 3rd instant, a specimen of the migratory locust (*Locusta migratoria*) was captured at Mickleover, near Derby, by a labouring man, who pursued it over several fields, being allured to the chase by its great size and immense leaps; and on the 13th a fine female was taken, near Burton-on-Trent, by a gentleman who was out shooting, and who disturbed it by getting over a hedge near to which it was reposing. This gentleman informs me, that, when first discovered, the insect sprang a distance of at least fourteen yards: he immediately followed it and secured it in his hat.

The first example above mentioned is now in the possession of my friend, R. I. Bell, Esq., of Mickleover; the other was given to me for the use of the Burton-on-Trent Natural History Society, in whose museum it will be placed. I have satisfactorily identified the species, and on dissecting it I discovered a large ovary, containing from forty to fifty eggs, apparently ready to be deposited.

In the 'Sheffield Mercury' of the 10th inst., there is a descrip-